Serial Number: 09/730238 Filing Date: December 5, 2000

Title: POWER SUPPLY WITH BUS HUB

Assignee: Intel Corporation

Page 2 Dkt: 884.335US1 (INTEL)

IN THE CLAIMS

Please amend the claims as follows:

- 1. (Currently Amended) An apparatus, comprising:
 - a housing;
 - a power supply enclosed in the housing;
 - a bus hub enclosed in the housing, the power supply being coupled to the bus hub to supply power to the bus hub; and
 - a downstream receptacle in the housing connected to both the power supply and the bus hub, the downstream receptacle being coupled to a cable to couple power from the power supply and data signals from the bus hub to the cable and to receive power and data signals from the cable.
- 2. (Original) The apparatus of claim 1, wherein the bus hub further comprises an upstream port.
- 3. (Previously Presented) The apparatus of claim 1, wherein the bus hub comprises: at least one downstream port to connect to at least one downstream device.
- 4. (Original) The apparatus of claim 1, wherein the bus hub is self powered.
- 5. (Original) The apparatus of claim 1, wherein the bus hub is bus powered.
- 6. (Original) The apparatus of claim 2, further comprising: a hub repeater connected to the upstream port.
- 7. (Currently Amended The apparatus of claim 1 wherein the power supply is coupled to supply power to the bus hub_receive alternating current (AC) power to convert the AC

Serial Number: 09/730238 Filing Date: December 5, 2000

Title: POWER SUPPLY WITH BUS HUB

Assignee: Intel Corporation

Dkt: 884.335US1 (INTEL)

Page 3

power into direct current (DC) power, the DC power being coupled to the downstream receptacle and to the bus hub.

- 8. (Previously Presented) The apparatus of claim 1 wherein the cable further comprises:
 - a device power wire to provide power to the bus hub;
 - a device ground wire;
 - a computer power wire to provide power from the power supply to a computer;
 - a computer ground wire; and
 - a plurality of signal wires to carry data signals between the computer and the bus hub.
- 9. (Original) The apparatus of claim 8, wherein the plurality of signal wires further comprises a signal twisted pair.
- 10. (Original) The apparatus of claim 8, wherein the plurality of signal wires further comprises a fiber optic channel.
- 11. (Currently Amended The apparatus of claim 1, wherein the power supply further comprises an alternating current to direct current converter is coupled to a wire to receive alternating current (AC) power, the power supply to convert the AC power into direct current (DC) power.
- 12. (Currently Amended A computing unit, comprising:
 - a computer comprising:
 - an upstream receptacle to deliver data signals to the computer; and
 - a power receptacle to deliver electrical power to the computer; and
- a power hub coupled to the upstream receptacle and the power receptacle via a cable, wherein the power hub comprises:
 - a housing:
 - a power supply enclosed in the housing, the power supply being coupled to the cable to provide power to the computer; and

Title: POWER SUPPLY WITH BUS HUB

Assignee: Intel Corporation

a bus hub enclosed in the housing, the bus hub being coupled to the cable to receive power and data signals from the computer and the power supply being coupled to the bus hub to supply power to the bus hub.

Page 4

Dkt: 884.335US1 (INTEL)

- 13. (Previously Presented) The computing unit of claim 12, wherein the cable further comprises:
 - a device power wire to provide power from the computer to the power hub;
 - a device ground wire;
 - a computer power wire to provide power from the power supply to the computer;
 - a computer ground wire; and
 - a plurality of signal wires to carry data signals between the computer and the power hub.
- 14. (Original) The computing unit of claim 13, wherein the plurality of signal wires comprises a twisted pair.
- 15. (Original) The computing unit of claim 13, wherein the plurality of signal wires comprises a fiber optic channel.
- 16. (Original) The computing unit of claim 12, wherein the bus hub further comprises an upstream port.
- 17. (Previously Presented) The computing unit of claim 12, wherein the bus hub further comprises:
 - at least one downstream port to connect to at least one downstream device.
- 18. (Currently Amended The computing unit of claim 16 elaim 12, wherein the bus hub further comprises:
 - a hub repeater connected to the upstream port.

Serial Number: 09/730238 Filing Date: December 5, 2000

Title: POWER SUPPLY WITH BUS HUB

Assignee: Intel Corporation

Dkt: 884.335US1 (INTEL)

Page 5

- 19. (Original) The computing unit of claim 12, wherein the bus hub is self powered.
- 20. (Original) The computing unit of claim 12, wherein the bus hub is bus powered.
- 21. (Previously Presented) A cable comprising:
 - a device power wire to provide power from a computer to a power hub;
 - a device ground wire;
 - a computer power wire to provide power from the power hub to the computer;
 - a computer ground wire; and
 - a plurality of signal wires to carry data signals between the computer and the power hub.
- 22. (Original) The cable of claim 21, wherein the cable further comprises:

 an upstream plug to connect to both an upstream bus receptacle and a power receptacle,

 wherein the power receptacle draws electric power from the computer power wire.
- 23. (Previously Presented) The cable of claim 21, further comprising:

 a downstream plug to electrically connect to both a downstream bus receptacle and a
 power receptacle, wherein the power receptacle is to supply electric power to the
 computer power wire, and wherein the downstream bus receptacle is connected to the
 device power wire, the device ground wire, and the plurality of signal wires.

24.-25. (Canceled)

- 26. (Previously Presented) The cable of claim 21 wherein the plurality of signal wires comprises a twisted pair.
- 27. (Previously Presented) The cable of claim 21 wherein the plurality of signal wires comprises a fiber optic channel.

Serial Number: 09/730238 Filing Date: December 5, 2000

Title: POWER SUPPLY WITH BUS HUB

Assignee: Intel Corporation

. Longitude inter-components.

Page 6

Dkt: 884.335US1 (INTEL)

28. (New) The computing unit of claim 12 wherein the power supply is coupled to receive

alternating current (AC) power to convert the AC power into direct current (DC)

power, the DC power being coupled to the cable and to the bus hub.

29. (New) An apparatus comprising:

a housing;

a power supply enclosed in the housing, the power supply being coupled to receive

alternating current (AC) power to convert the AC power into direct current (DC)

power;

a bus hub enclosed in the housing, the bus hub being coupled to the power supply to

receive DC power from the power supply; and

a downstream receptacle in the housing connected to both the power supply and the bus

hub, the downstream receptacle being coupled to a cable to couple DC power from the

power supply and data signals from the bus hub to the cable and to receive DC power

and data signals from the cable.

30. (New) The apparatus of claim 29 wherein the bus hub further comprises a root port.

31. (New) The apparatus of claim 29 wherein the bus hub further comprises a downstream

port to be coupled to a downstream device.

32. (New) The apparatus of claim 29 wherein the bus hub is self powered.

33. (New) The apparatus of claim 29 wherein the bus hub is bus powered.

34. (New) The apparatus of claim 29, further comprising a hub repeater coupled between a

root port and a plurality of downstream ports in the bus hub to manage connections to

and through the bus hub, each downstream port to be coupled to a downstream device.

Serial Number: 09/730238 Filing Date: December 5, 2000

Title: POWER SUPPLY WITH BUS HUB

Assignee: Intel Corporation

35. (New) The apparatus of claim 34 wherein the downstream devices comprise one or more of a mouse, a speaker, a telephone, a keyboard, a joystick, a camera, a modem, a scanner, and a printer.

- 36. (New) The apparatus of claim 34, further comprising a hub controller coupled to the hub repeater in the bus hub to route signals between the root port and the downstream ports and to perform error detection and recovery.
- 37. (New) The apparatus of claim 36 wherein the hub controller and the hub repeater comprise memory stored instructions executable by a processor or logic gates or a programmable logic device.
- 38. (New) The apparatus of claim 29 wherein the cable further comprises:
 - a device power wire to provide DC power to the bus hub;
 - a device ground wire;
 - a computer power wire to provide DC power from the power supply to a computer;
 - a computer ground wire; and
 - a plurality of signal wires to carry data signals between the computer and the bus hub.
- 39. (New) A computing unit, comprising:
 - a computer comprising:
 - an upstream receptacle to deliver data signals to the computer; and
 - a power receptacle to deliver electrical power to the computer; and
- a power hub coupled to the upstream receptacle and the power receptacle of the computer via a cable, wherein the power hub comprises:
 - a housing;
 - a power supply enclosed in the housing, the power supply being coupled to receive alternating current (AC) power to convert the AC power into direct current (DC) power, the power supply being coupled to the cable to provide DC power to the computer; and

Page 7
Dkt: 884.335US1 (INTEL)

Serial Number: 09/730238 Filing Date: December 5, 2000

Title: POWER SUPPLY WITH BUS HUB

Assignee: Intel Corporation

Dkt: 884.335US1 (INTEL)

Page 8

a bus hub enclosed in the housing, the bus hub being coupled to the power supply to receive DC power from the power supply and to the cable to receive power and data

signals from the computer.

40. (New) The computing unit of claim 39, wherein the cable further comprises:

a device power wire to provide DC power from the computer to the power hub;

a device ground wire;

a computer power wire to provide DC power from the power supply to the computer;

a computer ground wire; and

a plurality of signal wires to carry data signals between the computer and the power

hub.

41. (New) The computing unit of claim 39 wherein the bus hub further comprises a root

port.

42. (New) The computing unit of claim 39 wherein the bus hub further comprises a

downstream port to be coupled to a downstream device.

43. (New) The computing unit of claim 39 wherein the bus hub is self powered.

44. (New) The computing unit of claim 39 wherein the bus hub is bus powered.

45. (New) The computing unit of claim 39, further comprising a hub repeater coupled

between a root port and a plurality of downstream ports in the bus hub to manage

connections to and through the bus hub, each downstream port to be coupled to a

downstream device.

46. (New) The computing unit of claim 45 wherein the downstream devices comprise one

or more of a mouse, a speaker, a telephone, a keyboard, a joystick, a camera, a modem,

a scanner, and a printer.

Serial Number: 09/730238 Filing Date: December 5, 2000

Title: POWER SUPPLY WITH BUS HUB

Assignee: Intel Corporation

47. (New) The computing unit of claim 45, further comprising a hub controller coupled to the hub repeater in the bus hub to route signals between the root port and the downstream ports and to perform error detection and recovery.

Page 9

Dkt: 884.335US1 (INTEL)

48. (New) The computing unit of claim 47 wherein the hub controller and the hub repeater comprise memory stored instructions executable by a processor or logic gates or a programmable logic device.